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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In the application of

MUELLER et al.

Serial No. 09/811,432

Filed: March 20, 2001

For: LAYERED COMPOSITE MATERIALS WITH A DECORATIVE LAYER MADE  
FROM A CHROMED METHAL

) **MAIL STOP APPEAL BRIEF**

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) Group Art Unit: 1625

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) Examiner: Ferguson, Lawrence D.

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BRIEF ON APPEAL

Sir:

This appeal is from the examiner's final office action of October 7, 2004.

REAL PARTY IN INTEREST

The real party in interest is BASF Aktiengesellschaft, of Ludwigshafen, Germany.

Reel/Frame 011684/0929, recorded on March 20, 2001.

RELATED APPEALS AND INTERFERENCES

To appellants' knowledge and belief, there are no interferences or other appeals  
which will directly affect or be directly affected by or have a bearing on the Board's  
decision in this application.

### STATUS OF THE CLAIMS

Claims 1, 5 and 6 currently are pending in the application.

### STATUS OF THE AMENDMENTS

The last amendment of the claims was the reply under 37 CFR § 1.114 mailed to the office on March 17, 2004.

### SUMMARY OF THE INVENTION

The present invention relates to a layered composite material which comprises a substrate made from a thermoplastic polymer and comprises an intermediate layer arranged thereupon and a decorative layer applied to the intermediate layer, where the decorative layer is composed of a chromed metal. The present invention further relates to a process for producing this layered composite material, and also its use as a reflecting or insulating part of a household device, of a piece of furniture or a molding in the electrical, construction or automotive industry or in the health sector. (Specification, page 1, lines 5-14).

### ISSUES

Whether claims 1, 5 and 6 obvious under 35 USC § 103(a) over Nicholas et al. (US 3,668,034) in view of Vinod (US 5,965,232).

### GROUPING OF CLAIMS

The claims have not been argued separately.

### ARGUMENT

The following legal authorities are relied on in the following arguments in the

order in which they are cited:

*In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

*In re Royka*, 490 F.2d 9812, 180 USPQ 580 (CCPA 1974).

### REJECTIONS

Claims 1 and 5-6 are rejected under 35 USC § 103(a) as being unpatentable over Nicholas et al. (US 3,668,034) in view of Vinod (US 5,965,232).

Applicants believe Vinod is non-analogous art.

The examiner must determine what is “analogous prior art” for the purpose of analyzing the obviousness of the subject matter at issue. MPEP § 2141.01(a). In order to rely on a reference as a basis for rejection of an applicant’s invention, the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention was concerned.”

*In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

Vinod teaches improvements in floor coverings. The present invention relates to improvements in mechanical and thermal stability of reflectors for radiant heat or light (page 3, line 1 of the specification). These fields are far enough that Vinod would not logically have commended itself to an inventor’s attention. This is the standard in *Wang Laboratories Inc. v. Toshiba Corp.* 993 F.2d 858, 26 USPQ2d 1767 (Fed. Cir. 1993).

Applicants also believe the examiner has not established a *prima facie* case of obviousness.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 9812, 180 USPQ 580 (CCPA 1974). The combination of Nicholas et al. and Vinod does not teach nor suggest each and every element of the rejected claims because the intermediate layer comprising a non-woven composed of a polypropylene prepared using a metallocene catalyst is neither taught nor suggested by the combination.

The examiner has referred to the disclosure in Nicholas et al. in very broad and general terms. The materials actually employed by the present invention for the claimed layered composite material are not disclosed or suggested by the disclosure of Nicholas et al., not alone nor in the any combination with Vinod.

The metalized film of Nicholas comprises a polyester film made of polyethyleneterephthalate (see col. 2, lines 29-30). The intermediate layer comprises vinyl polymers such as vinyl butyral polymers, vinyl chloride polymers, vinyl chloride-acetate polymers, vinylidene chloride polymers and others more enumerated in col. 2, lines 51 through 58. The backing layer of Nicholas' invention comprises also vinyl polymers, namely the same polymers as mentioned for the intermediate layer, preferably the intermediate bonding layer comprises a vinyl polymer and the backing layer comprises also a vinyl polymer, as well (see col. 2, lines 62-70).

The only connection between the layered composite material of the instant invention and the disclosure of Nicholas et al. seems to be the decorative layer comprising chrome. However, (1) the substrate layer comprising propylene

homopolymer is not disclosed by Nicholas pertaining mainly to thermoplastic vinyl polymers. (2) The intermediate layer of polypropylene made in the presence of metallocene catalyst and designed as a non-woven filamentary layer is not disclosed by Nicholas et al. describing rather an intermediate layer composed of vinyl polymers. (3) The decorative layer comprising a chromed metal layer (as such) is not disclosed by the Nicholas reference rather pertaining to a metalized polyester film. (4) The heat cured layer is not disclosed by the Nicholas reference failing to teach any additional layer.

The surprising advantage of the instant invention is the presence of the intermediate layer designed as a non-woven of thin polypropylene filaments which is surprisingly suitable and responsible for the creation of a strong connection between the substrate layer and the decorative metal layer during injection molding of the polypropylene when employed for the substrate layer.

The office action cited additionally the Vinod reference as teaching the presence of a heat cured layer (col. 5, lines 13 and 14) on top of a decorative layer made of a fabric. Thus, the structure of the floor covering described by Vinod, which is designated as a carpet (see col. 1, line 20) differs essentially from the layered composite material of the instant invention, disregarding that fibers are described in col. 7, line 18, made of polypropylene. Such polypropylene fibers, however, are comprised in a cushioning layer, such as a carpet, comprising a primary backing laminated to a secondary backing material with tufts of yarn projecting from the primary backing (see col. 7, lines 11 to 14).

The inventors of the present invention felt that it was not obvious to replace **all** known materials from Nicholas' layered material by polypropylene, especially to replace Nicholas' intermediate layer by a non-woven filamentary layer, and to combine that new layered construction with a heat cured layer on top of the decorative layer which was mentioned by Vinod in a completely different arrangement, i.e., sitting on top of a carp to prevent liquid permeation (see col. 1, line 10). The inventors did not have any intention of having that combination. Even since polypropylene mentioned at Vinod was only one choice of several other polymers proposed for an artificial carpet, which was not given any preference.

For clarification, applicants combined claims 1 and 4. Also, applicants limited the decorative layer on a chromed metal by having claim 1 recite "consisting of" instead of "composed of."

Regarding applicants previous arguments the examiner stated that one cannot show non-obviousness by attacking references individually where the rejections are based on combination of references. This is true. However, applicants did not attack the references individually per se. A combination of references is defective when one of the individual references which was used is defective for a required element of a rejected claim. In other words, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

In the present case, not all elements of the rejected claims are taught or

suggested by the examiner's cited reference, neither when combined nor taken individually. The examiner uses one reference, Nicholas et al., to teach that any thermoplastic can be used as an intermediate layer.

Applicants do not believe this is sufficient to establish a *prima facie* case of obviousness in the present case. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitation. MPEP § 2143.

The intermediate layer employed by the instant invention is not only defined by its chemical composition (i.e., polypropylene prepared in the presence of metallocene catalysts), but rather by its physical structure (i.e., non-woven or fleece.) This is a positive limitation in currently amended claim 1.

Applicants believe Nicholas et al. proposes to employ any thermoplastic material as intermediate bonding layer, whereas the instant invention is directed to polypropylene. Also, the actual intermediate layer employed by the present invention is not just defined by its chemical composition, i.e., polypropylene prepared in the presence of metallocene catalysts, but rather also by its physical structure (non-woven or fleece). Simply mentioning every possible thermoplastic material in a first prior art

reference and the mention of polypropylene in another prior art reference cannot obviate such a special intermediate layer as employed by the instant invention in connection with all other features. Accordingly, the examiner has not established a *prima facie* case of obviousness because all claim limitations are not taught or suggested by the cited references. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

#### CONCLUSION

For the foregoing reasons, it is respectfully submitted that reversal of the examiner's rejection of all claims is in order.

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Respectfully submitted,

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**CLAIMS IN THE CASE**

1. A layered composite material which comprises a substrate made from a thermoplastic propylene homopolymer, an intermediate layer composed of a thermoplastic polypropylene prepared in the presence of a metallocene polymerization catalyst whereby said intermediate layer is designed as a non-woven filamentary layer, and a decorative layer applied to the intermediate layer, where the decorative layer is composed of a chromed metal and a heat-cured layer which sits on top of the decorative layer.

2 - 4 canceled

5. A layered composite material as claimed in claim 1, where the intermediate layer and the substrate are composed of the same thermoplastic.

6. A layered composite material as claimed in claim 1, the total thickness of which is from 0.5 to 100 mm, at least 80% of which is made up by the substrate.

7 -11 canceled

12. (withdrawn) A method of using the layered composite material as claimed in claim 1 as a reflecting part of a household device, of a piece of furniture or of a molding in the electrical, construction or automotive industry or in the health sector.
13. (withdrawn) A method of using the layered composite material as claimed in claim 1 as an insulating part of a household device, of a piece of furniture or of a molding in the electrical, construction or automotive industry or in the health sector.